



THERMAL PROCESSING
TRAINING

Module 21. HAV and HACCP Verification Tasks in Canning Establishments

Thermal Processing for Meat and Poultry
Products Training



Purpose and Objectives



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- Purpose of Module 23
- Performance Objective
 - Become familiar with some of the thought processes, decisions, and controls a canning establishment may employ
 - Explain how to perform the HAV task for products produced under the exemption
 - Explain how to perform the HACCP Verification task when microbial hazards are addressed in a HACCP plan



Exemption for Microbial Hazards



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- 9 *CFR* 417.2(b)(3):
 - “HACCP plans for thermally processed/commercially sterile products do not have to address the food safety hazards associated with microbiological contamination if the product is produced in accordance with the requirements of Part 431 of this chapter.”



Possible Outcomes of the HA



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1. HACCP-M/C/P
2. HACCP-C/P and CR-M
3. CR-M (no C/P therefore no HACCP plan)

M=microbial hazard

C=chemical hazard

P=physical hazard

CR=canning regulation



Performing the HAV Task



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- Routine HAV assigned quarterly
- IPP perform 8 steps of the HAV task including determining whether implementation of prerequisite programs continue to support decisions that hazards are NRLTO [417.5(a)(1)]
- For products under the exemption, repetitive noncompliance with the canning regulations or failure to prevent a microbial hazard indicates lack of support for a decision that a microbial hazard is NRLTO



Canning HACCP Plan Assumptions



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- Assumptions
 - Establishment has considered microbiological hazards reasonably likely to occur in its hazard analysis
 - Establishment's HACCP plan complies with 9 *CFR* 417



Canning HACCP Plan Assumptions (2)



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- Assumptions (continued)
 - Establishment's HACCP plan for a product (e.g., canned corned beef) has the following critical control points (CCPs):
 - Container receiving
 - Metal detection
 - Can closures
 - Thermal processing (i.e., retorting)



HACCP Verification Task



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- Select specific production;
- Use recordkeeping, review and observation, or both components;
- Verify monitoring, corrective action, verification, and recordkeeping at ALL CCPs;
- Verify canning regulations relevant to the specific production (see 7530.2 VII); and
- Verify 1 or more other canning regulation



Retort Process CCP—Critical Limits



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- Initial temperature: minimum 30°C
- Venting: minimum 12 minutes and 100°C
- Thermal process:
 - For 320g to 340g product size:
 - Time: 75 minutes minimum
 - Temperature: 121°C minimum
 - For up to 200g product size:
 - Time: 55 minutes minimum
 - Temperature: 121°C minimum



Additional Items the CSI Should Verify: During Operations



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- Product formulation matches that of the recommended thermal process.
- There has been no changes in product formulations or filling procedures.
- Any critical factors associated with the formulation and filling are adequately monitored and controlled .



Additional Items the CSI Should Verify: During Operations (2)



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- The retort installation, retort crates, divider plates, etc. are as described in the recommended venting schedule (from canning regulations or a process authority).
- The required retort venting time *and* temperature are achieved.
- The initial product temperature is taken of the coldest container before the start of the thermal process.



Additional Items the CSI Should Verify: During Operations (3)



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- The required thermal process is delivered and the required data are recording in real-time.
- Note that:
 - Similar approach would be taken for different retort systems.
 - **Reference should continue to be made to the additional requirements in the meat and poultry canning regulations (431.1-431.12).**



Role of the FSIS Enforcement Investigations and Analysis Officer (EIAO)



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- Conduct food safety assessments (FSAs) (i.e., audit)
- Evaluate the adequacy of the establishment's HACCP system
- Evaluate the adequacy of establishment's supporting documentation and validation data



Key Points



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- The verification activities conducted by the CSI are critical to ensure the safety of canned product.
- Additional considerations should be included when conducting verification activities.
- The canning regulations should remain as the standard for making compliance decisions along with the HACCP regulation.



Questions



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Questions?

